FlyBy Math™ Alignment
Idaho Achievement Standards
Mathematics 2-1-06

Standard 1: Number and Operation

Goal 1.1: Understand and use numbers.

Objective(s)	*FlyBy Math*™ Activities
7.M.1.1.6 Recognize pertinent information for problem-solving (328.01.b)	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Goal 1.2: Perform computations accurately

Objective(s)	*FlyBy Math*™ Activities
7.M.1.2.6 Use a variety of strategies including common mathematical formulas to compute problems drawn from real life situations. (328.01.a)	--Use tables, graphs, and equations to solve aircraft conflict problems. --Use the distance-rate-time formula to predict and analyze aircraft conflicts.

Goal 1.3: Estimate and judge reasonableness of results.

Objective(s)	*FlyBy Math*™ Activities
7.M.1.3.1 Estimate to predict computation results. (317.03 a)	--Predict outcomes and explain results of mathematical models and experiments.

Standard 2: Concepts and Principles of Measurement

Goal 2.1: Understand and use customary and metric measurements.

Objective(s)	*FlyBy Math*™ Activities
7.M.2.1.1 Select and use appropriate units and tools to make formal measurements in both systems. (329.01.a)	--Calculate and measure the position and time of simulated aircraft. Represent that motion using tables, graphs, equations, and experimentation.
7.M.2.1.2 Apply estimation of measurement to real-world and content problems using standard measuring devices. (329.01.b)	--Predict outcomes and explain results of mathematical models and experiments. --Compare predictions, calculations, and experimental evidence for several aircraft conflict problems.

Goal 2.2: Apply the concepts of rates, ratios, and proportions.	
Objective(s) **7.M.2.2.1** Explain rates and their relationship to ratios, and use proportions to solve problems represented with a diagram. (329.02.a)	***FlyBy Math™* Activities** --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.
7.M.2.2.2 Reduce rates to unit rates.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Standard 3: Concepts and Language of Algebra and Functions	
Goal 3.4: Understand the concept of functions.	
Objective(s) **7.M.3.4.2** Explain how a change in one quantity impacts a change in another quantity. (333.01.b)	***FlyBy Math™* Activities** --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates. --Interpret the slope of a line in the context of a distance-rate-time problem.
Goal 3.5: Represent equations, inequalities and functions in a variety of formats.	
7.M.3.5.1 Represent a simple set of data in a table, as a graph, and as a mathematical relationship. (333.02.a)	--Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.
Goal 3.6: Apply functions to a variety of problems.	
Objective(s) **7.M.3.6.1** Use patterns and linear functions to represent and solve simple problems. (333.03 a)	***FlyBy Math™* Activities** --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Represent distance, speed, and time relationships for constant speed cases using linear equations and a Cartesian coordinate system.

Standard 4: Concepts and Principles of Geometry	
Goal 4.3: Apply graphing in two dimensions.	
Objective(s) **7.M.4.3.1** Identify and plot points on a coordinate plane.	***FlyBy Math™* Activities** --Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

Standard 5: Data Analysis, Probability, and Statistics	
Goal 5.1: Understand data analysis.	
Objective(s) **7.M.5.1.1** Read and interpret tables, charts, and graphs, including frequency tables, scatter plots, broken line graphs, line plots, bar graphs, histograms, circle graphs, and stem-and-leaf plots. (332.01.a)	***FlyBy Math™* Activities** --Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs. --Use tables, bar graphs, line graphs, equations, and a Cartesian coordinate system to draw conclusions.
7.M.5.1.2 Explain conclusions drawn from tables, charts, and graphs. (332.01.b)	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
Goal 5.2: Collect, organize, and display data.	
Objective(s) **7.M.5.2.1** Collect, organize and display data with appropriate notation in tables, charts and graphs, including scatter plots, broken line graphs, line plots, bar graphs, and stem-and-leaf plots. (332.02.a)	***FlyBy Math™* Activities** --Represent distance, rate, and time data using tables, line plots, bar graphs, and line graphs. --Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.